

OCTAPAD SPD-30 Effects List

The multi-effects feature 30 different kinds of effects.

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08	OVERDRIVE
09	EQUALIZER
10	ISOLATOR
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About Note Values

Some effect parameters (such as Rate or Delay Time) can be set by using note values.

Whenever the "BPM Sync" parameter is set to "ON," settings can be made in terms of a note value, so when the effect is applied, it will be synchronized to the tempo set for the Kit or Phrase.

note:

	Sixty-fourth-note triplet		Sixty-fourth note
	Thirty-second-note triplet		Thirty-second note
	Sixteenth-note triplet		Dotted thirty-second note
	Sixteenth note		Eighth-note triplet
	Dotted sixteenth note		Eighth note
	Quarter-note triplet		Dotted eighth note
	Quarter note		Half-note triplet
	Dotted quarter note		Half note
	Whole-note triplet		Dotted half note
	Whole note		Double-note triplet
	Dotted whole note		Double note

When "BPM Sync" is set to "OFF," a numerical value can be set for the relevant items.

NOTE

If you set the delay time as a note value, slowing down the tempo will not change the delay time beyond a certain length. There is an upper limit for the delay time so if it is set as a note value and you slow down the tempo until this upper limit is reached, the delay time cannot change any further. This upper limit is the maximum value that can be specified when setting the delay time as a numerical value.

About Knob Indications

When the icons shown below appear along with a parameter in the FX-EDIT screen, it means that this FX parameter can be controlled with the knobs in the FX CONTROL screen. For each FX, the optimal parameters have been assigned and made available for control.

		Knob 1
		Knob 2
		Knob 3

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00: THRU

The effect won't be applied.



01: SUPER FILTER

This is a filter with an extremely sharp slope. The cutoff frequency can be varied cyclically.



Knob	Parameter	Value	Explanation
	Filter Type	LPF, BPF, HPF, NOTCH	Filter type Frequency range that will pass through each filter LPF: Frequencies below the cutoff BPF: Frequencies in the region of the cutoff HPF: Frequencies above the cutoff NOTCH: Frequencies other than the region of the cutoff
	Slope	-12 dB, -24 dB, -36 dB	Filter slope (damping characteristics; amount of damping per octave) -12 dB: gentle -24 dB: steep -36 dB: extremely steep
[Knob 3]	Cutoff	0–127	Cutoff frequency of the filter Increasing this value will raise the cutoff frequency.
[Knob 2]	Resonance	0–127	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.
	Modulation Sw	OFF, ON	On/off switch for cyclic change
	Modulation Wave	TRI, SQR, SIN, SAW1, SAW2	How the cutoff frequency will be modulated TRI: triangle wave SQR: square wave SIN: sine wave SAW1: sawtooth wave (upward) SAW2: sawtooth wave (downward)
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
	Rate	0–127, note	Rate of modulation
[Knob 1]	Depth	0–127	Depth of modulation
	Level	0–127	Output level



02: STEP FILTER

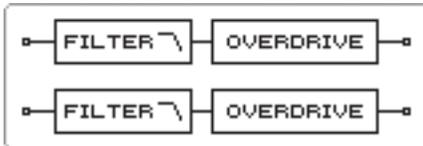
This is a filter whose cutoff frequency can be modulated in steps. You can specify the pattern by which the cutoff frequency will change.



Knob	Parameter	Value	Explanation
[Knob 3]	Cutoff Modify	-64–+63	Increases/decreases value for all steps
	Cutoff Step 1-8	0–127	Cutoff frequency at each step Increasing this value will raise the cutoff frequency.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Rate at which 8-step sequence is to be repeated
	Attack	0–127	Speed at which the cutoff frequency changes between steps
	Filter Type	LPF, BPF, HPF, NOTCH	Filter type Frequency range that will pass through each filter LPF: frequencies below the cutoff BPF: frequencies in the region of the cutoff HPF: frequencies above the cutoff NOTCH: frequencies other than the region of the cutoff
	Slope	-12 dB, -24 dB, -36 dB	Filter slope (damping characteristics; amount of damping per octave) -12 dB: gentle -24 dB: steep -36 dB: extremely steep
[Knob 2]	Resonance	0–127	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.
	Level	0–127	Output level

03: FILTER+DRIVE

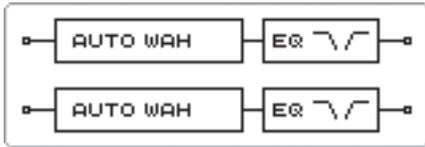
This is a low-pass filter equipped with overdrive. It cuts the upper range and adds distortion.



Knob	Parameter	Value	Explanation
[Knob 3]	Cutoff	0–127	Cutoff frequency of the filter Increasing this value will raise the cutoff frequency.
[Knob 2]	Resonance	0–127	Filter resonance level Increasing this value will emphasize the region near the cutoff frequency.
[Knob 1]	Drive	0–127	Amount of distortion

04: AUTO WAH

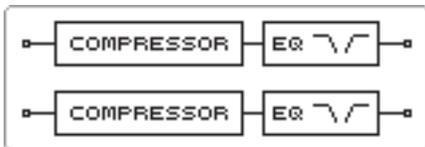
Cyclically controls a filter to create cyclic change in timbre.



Knob	Parameter	Value	Explanation
	Filter Type	LPF, BPF	Type of filter LPF: The wah effect will be applied over a wide frequency range. BPF: The wah effect will be applied over a narrow frequency range.
[Knob 3]	Manual	0-127	Adjusts the center frequency at which the effect is applied.
[Knob 1]	Peak	0-127	Adjusts the amount of the wah effect that will occur in the range of the center frequency. Set a higher value for Q to narrow the range to be affected.
[Knob 2]	Sensitivity	0-127	Adjusts the sensitivity with which the filter is controlled.
	Polarity	UP, DOWN	Sets the direction in which the frequency will change when the auto-wah filter is modulated. UP: The filter will change toward a higher frequency. DOWN: The filter will change toward a lower frequency.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
	Rate	0-127, note	Frequency of modulation
	Depth	0-127	Depth of modulation
	Phase	0-180 deg	Adjusts the degree of phase shift of the left and right sounds when the wah effect is applied.
	Low Gain	-15-+15 dB	Gain of the low range
	High Gain	-15-+15 dB	Gain of the high range
	Level	0-127	Output Level

05: COMPRESSOR

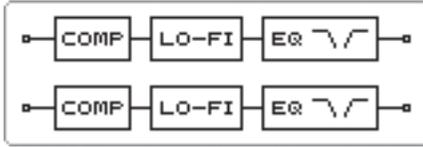
Flattens out high levels and boosts low levels, smoothing out fluctuations in volume.



Knob	Parameter	Value	Explanation
[Knob 1]	Threshold	-48-0 dB	Adjusts the volume at which compression begins
	Make Up	0-24 dB	Adjusts the output gain
	Ratio	2:1, 3:1, 4:1, 8:1, 100:1	Compression ratio
[Knob 2]	Attack	0-100	Sets the time from when the input exceeds the Threshold until the volume starts being compressed
[Knob 3]	Release	0-99	Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied
	Low Gain	-15-+15 dB	Gain of the low frequency range
	High Gain	-15-+15 dB	Gain of the high frequency range

06: LO-FI COMPRESS

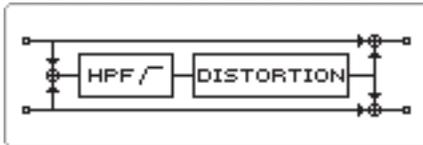
This is an effect that intentionally degrades the sound quality for creative purposes.



Knob	Parameter	Value	Explanation
	Pre Filter Type	1-3	Selects the type of filter applied to the sound before it passes through the Lo-Fi effect.
	Lo-Fi Type	1-9	Degrades the sound quality. The sound quality grows poorer as this value is increased.
	Post Filter Type	OFF, LPF, HPF	Type of filter after it passes through the Lo-Fi effect OFF: no filter is used LPF: cuts the frequency range above the Cutoff HPF: cuts the frequency range below the Cutoff
	Post Filter Cutoff	200-8000 Hz	Basic frequency of the Post Filter
	Low Gain	-15-+15 dB	Gain of the low range
	High Gain	-15-+15 dB	Gain of the high range
[Knob 1]	Level	0-127	Output level

07: DISTORTION

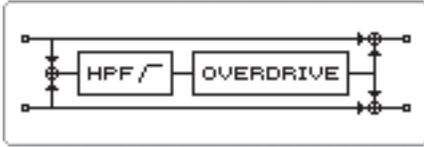
Intensely distorts the sound. The tone quality of the distorted sound is adjusted with a filter.



Knob	Parameter	Value	Explanation
	Pre HPF	BYPASS, 16-1000 Hz	Frequency of the filter that cuts the low-frequency content of the input sound (BYPASS: no cut)
[Knob 1]	Drive	0-127	Amount of distortion
	Tone Sw	OFF, ON	Switches Tone on/off
	Tone	0-127	Tone quality of distorted sound
[Knob 2]	Distortion Level	0-127	Volume of distorted sound
[Knob 3]	Dry Level	0-127	Volume of original sound

08: OVERDRIVE

Mildly distorts the sound. The tone quality of the distorted sound is adjusted with a filter.



Knob	Parameter	Value	Explanation
	Pre HPF	BYPASS, 16–1000 Hz	Frequency of the filter that cuts the low-frequency content of the input sound (BYPASS: no cut)
[Knob 1]	Drive	0–127	Amount of distortion
	Tone	0–127	Tone quality of distorted sound
[Knob 2]	Overdrive Level	0–127	Volume of distorted sound
[Knob 3]	Dry Level	0–127	Volume of original sound

09: EQUALIZER

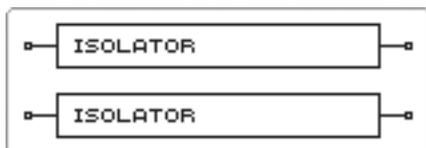
This is a four-band stereo equalizer (low, mid x 2, high).



Knob	Parameter	Value	Explanation
	Low Freq	200, 400 Hz	Frequency of the low range
[Knob 1]	Low Gain	-15–+15 dB	Gain of the low range
	Mid1 Freq	200–8000 Hz	Frequency of the middle range 1
	Mid1 Gain	-15–+15 dB	Gain of the middle range 1
	Mid1 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 1 Set a higher value for Q to narrow the range to be affected.
	Mid2 Freq	200–8000 Hz	Frequency of the middle range 2
	Mid2 Gain	-15–+15 dB	Gain of the middle range 2
	Mid2 Q	0.5, 1.0, 2.0, 4.0, 8.0	Width of the middle range 2 Set a higher value for Q to narrow the range to be affected.
	High Freq	2000, 4000, 8000 Hz	Frequency of the high range
[Knob 2]	High Gain	-15–+15 dB	Gain of the high range
[Knob 3]	Level	0–127	Output Level

10: ISOLATOR

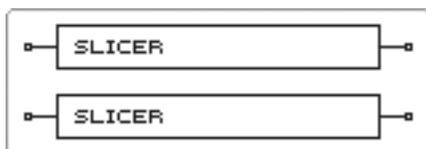
This is an equalizer which cuts the volume greatly, allowing you to add a special effect to the sound by cutting the volume in varying ranges.



Knob	Parameter	Value	Explanation
[Knob 1]	Boost/Cut Low	-64+63	These boost and cut each of the Low frequency ranges. At -64, the sound becomes inaudible. 0 is equivalent to the input level of the sound.
[Knob 2]	Boost/Cut Mid	-64+63	These boost and cut each of the Middle frequency ranges. At -64, the sound becomes inaudible. 0 is equivalent to the input level of the sound.
[Knob 3]	Boost/Cut High	-64+63	These boost and cut each of the High frequency ranges. At -64, the sound becomes inaudible. 0 is equivalent to the input level of the sound.
	Mode	BOOST NORMAL, BOOST HIGH	Maximum value of the boost NORMAL: +4dB HIGH: +12dB

11: SLICER

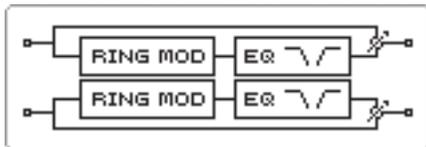
By applying successive cuts to the sound, this effect turns a conventional sound into a sound that appears to be played as a backing phrase. This is especially effective when applied to sustain type sounds.



Knob	Parameter	Value	Explanation
[Knob 3]	Level Modify	0-127	Increases value for all steps
	Level Step 1-8	0-127	Level at each step
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0-127, note	Rate at which 8-step sequence is to be repeated
[Knob 2]	Attack	0-127	Speed at which the level changes between steps
	Input Sync Sw	OFF, ON	Specifies whether an input note will cause the sequence to resume from the first step of the sequence (ON) or not (OFF)
	Input Sync Threshold	0-127	Volume at which an input note will be detected
	Mode	LEGATO, SLASH	Sets the manner in which the volume changes as one step progresses to the next. LEGATO: The change in volume from one step's level to the next remains unaltered. If the level of a following step is the same as the one preceding it, there is no change in volume. SLASH: The level is momentarily set to 0 before progressing to the level of the next step. This change in volume occurs even if the level of the following step is the same as the preceding step.
	Shuffle	0-127	Timing of volume changes in levels for even-numbered steps (step 2, step 4, step 6...). The higher the value, the later the beat progresses.
	Level	0-127	Output level

12: RING MODULATOR

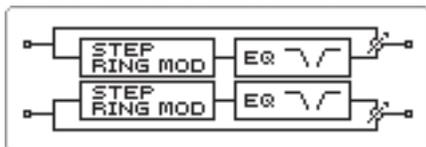
This is an effect that applies amplitude modulation (AM) to the input signal, producing bell-like sounds. You can also change the modulation frequency in response to changes in the volume of the sound sent into the effect.



Knob	Parameter	Value	Explanation
	Mode	RING MOD, ENV OSC	RING MOD: Applies amplitude modulation to the input signal ENV OSC: Outputs oscillation corresponding to the input signal
[Knob 1]	Frequency	0–127	Adjusts the frequency at which modulation is applied.
[Knob 2]	Sensitivity	0–127	Adjusts the amount of frequency modulation applied.
	Polarity	UP, DOWN	Determines whether the frequency modulation moves towards higher frequencies (UP) or lower frequencies (DOWN).
	Wet Low Gain	-15→+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15→+15 dB	Amount of boost/cut for the effect sound's upper range
[Knob 3]	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the effect sound (W)
	Level	0–127	Output Level

13: STEP RINGMOD

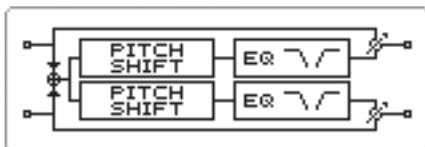
This is a ring modulator that uses a 8-step sequence to vary the frequency at which modulation is applied.



Knob	Parameter	Value	Explanation
[Knob 3]	Freq Modify	-64–63	Increases value for all steps
	Freq Step 1-8	0–127	Frequency of ring modulation at each step
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Rate at which 8-step sequence is to be repeated
	Mode	RING MOD, ENV OSC	RING MOD: Applies amplitude modulation to the input signal ENV OSC: Outputs oscillation corresponding to the input signal
[Knob 2]	Attack	0–127	Speed at which the modulation frequency changes between steps
	Wet Low Gain	-15→+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15→+15 dB	Amount of boost/cut for the effect sound's upper range
	Balance	D100:0W–D0:100W	Volume balance of the original sound (D) and effect sound (W)
	Level	0–127	Output Level

14: PITCH SHIFT

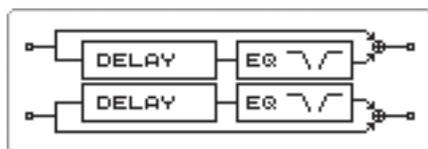
Shifts the pitch of the original sound. This pitch shift can add two pitch shifted sounds to the original sound.



Knob	Parameter	Value	Explanation
[Knob 1]	Pitch 1 [semitone]	-24+12 semi	Adjusts the pitch of Pitch Shift 1 in semitone steps.
[Knob 2]	Pitch 2 [semitone]	-24+12 semi	Adjusts the pitch of Pitch Shift 2 in semitone steps.
	Pitch Delay BPM Sync	OFF, ON	OFF: Pitch Delay Time specified as numerical value ON: Pitch Delay Time specified as note value
	Pitch Delay Time	0–1300 msec, note	Adjusts the delay time from the direct sound until the Pitch Shift sound is heard.
[Knob 3]	Pitch Feedback	-98+98 %	Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase.
	Pitch 1 Pan	L64–63R	Stereo location of the Pitch Shift 1 sound
	Pitch 2 Pan	L64–63R	Stereo location of the Pitch Shift 2 sound
	Pitch 1 Level	0–127	Volume of the Pitch Shift 1 sound
	Pitch 2 Level	0–127	Volume of the Pitch Shift 2 sound
	Wet Low Gain	-15+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15+15 dB	Amount of boost/cut for the effect sound's upper range
	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the pitch shifted sound (W)
	Level	0–127	Output Level

15: STEREO DELAY

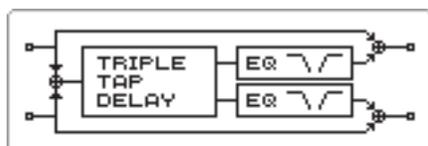
This is a stereo delay.



Knob	Parameter	Value	Explanation
	Left BPM Sync	OFF, ON	OFF: Left Time specified as numerical value ON: Left Time specified as note value
	Left Time	0–1300 msec, note	Adjusts the time until the delay sound is heard.
	Right BPM Sync	OFF, ON	OFF: Right Time specified as numerical value ON: Right Time specified as note value
	Right Time	0–1300 msec, note	Adjusts the time until the delay sound is heard.
	Phase Left	NORMAL, INVERSE	Phase of the delay sound
	Phase Right	NORMAL, INVERSE	Phase of the delay sound
	Feedback Mode	NORMAL, CROSS	Selects the way in which delay sound is fed back into the effect.
[Knob 1]	Feedback	-98–+98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
	HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out (BYPASS:no cut).
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
[Knob 2]	Level	0–127	Output level

16: 3TAP PAN DELAY

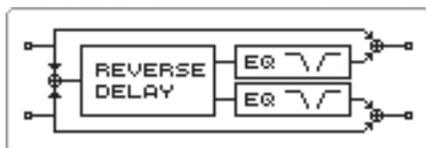
Produces three delay sounds; center, left and right.



Knob	Parameter	Value	Explanation
	Delay BPM Sync	OFF, ON	OFF: Left/Center/Right Time specified as numerical value ON: Left/Center/Right Time specified as note value
	Left/Center/Right Time	0–1300 msec, note	Adjusts the time from the original sound until the left, right, and center delayed sounds are heard
	Center Feedback	-98–+98 %	Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.
	HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which sound fed back to the effect is filtered out (BYPASS:no cut).
[Knob 1/2/3]	Left/Center/Right Level	0–127	Volume of each delay
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
	Level	0–127	Output level

17: REVERSE DELAY

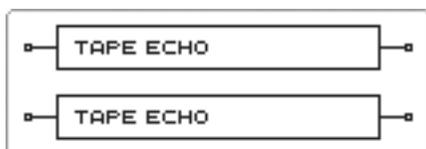
This is a reverse delay that adds a reversed sound of the input sound as a delayed sound. A chorus is connected immediately after the reverse delay.



Knob	Parameter	Value	Explanation
	Threshold	0–127	Volume at which the reverse delay will begin to be applied
	Reverse Delay BPM Sync	OFF, ON	OFF: Reverse Delay Time specified as numerical value ON: Reverse Delay Time specified as note value
	Reverse Delay Time	0–1300 msec, note	Delay time from when sound is input into the reverse delay until the delay sound is heard
[Knob 1]	Feedback	-98–+98 %	Proportion of the delay sound that is to be returned to the input of the reverse delay. Negative(-) settings invert the phase.
	HF Damp	200–8000 Hz, BYPASS	Frequency at which the high-frequency content of the reverse-delayed sound will be cut (BYPASS: no cut)
[Knob 2]	Reverse Delay Level	0–127	Volume of the reverse delay sound
[Knob 3]	Chorus Level	0–127	Volume of the reverse delay chorus sound
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
	Level	0–127	Output Level

18: TAPE ECHO

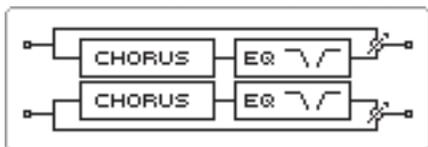
Simulates a tape-type echo unit of the past.



Knob	Parameter	Value	Explanation
[Knob 1]	Rate	0–127	Tape speed
[Knob 2]	Intensity	0–127	Amount of echo repeat
[Knob 3]	Level	0–127	Output Level

19: CHORUS

This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.



Knob	Parameter	Value	Explanation
	Filter Type	OFF, LPF, HPF	Type of filter OFF: no filter is used LPF: cuts the frequency range above the Cutoff Freq HPF: cuts the frequency range below the Cutoff Freq
	Cutoff Frequency	200–8000 Hz	Center frequency when using the filter to cut a specific frequency range
	Pre Delay	0.0–100 msec	Adjusts the delay time from the direct sound until the chorus sound is heard.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Frequency of modulation
[Knob 2]	Depth	0–127	Depth of modulation
	Phase	0–180 deg	Spatial spread of the sound
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
[Knob 3]	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
	Level	0–127	Output Level

20: HEXA-CHORUS

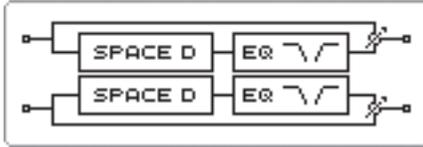
Uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.



Knob	Parameter	Value	Explanation
	Pre Delay	0.0–100 msec	Adjusts the delay time from the direct sound until the chorus sound is heard.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Frequency of modulation
	Depth	0–127	Depth of modulation
	Pan Deviation	0–20	Adjusts the difference in stereo location between each chorus sound. 0: All chorus sounds will be in the center. 20: Each chorus sound will be spaced at 60 degree intervals relative to the center.
[Knob 2]	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
[Knob 3]	Level	0–127	Output Level

21: SPACE-D

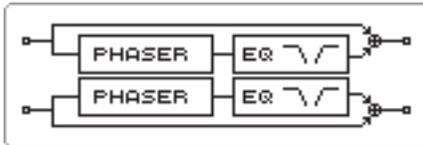
This is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.



Knob	Parameter	Value	Explanation
	Pre Delay	0.0–100 msec	Adjusts the delay time from the direct sound until the chorus sound is heard.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Frequency of modulation
[Knob 2]	Depth	0–127	Depth of modulation
	Phase	0–180 deg	Spatial spread of the sound
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
[Knob 3]	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the chorus sound (W)
	Level	0–127	Output Level

22: PHASER

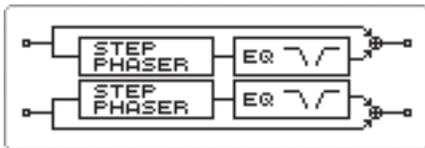
A phase-shifted sound is added to the original sound and modulated.



Knob	Parameter	Value	Explanation
	Mode	4-STAGE, 8-STAGE, 12-STAGE	Number of stages in the phaser
[Knob 2]	Manual	0–127	Adjusts the basic frequency from which the sound will be modulated.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Frequency of modulation
	Depth	0–127	Depth of modulation
	Polarity	INVERSE, SYNCHRO	Selects whether the left and right phase of the modulation will be the same or the opposite. INVERSE: The left and right phase will be opposite. When using a mono source, this spreads the sound. SYNCHRO: The left and right phase will be the same. Select this when inputting a stereo source.
[Knob 3]	Resonance	0–127	Amount of feedback
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
	Mix	0–127	Level of the phase-shifted sound
	Level	0–127	Output Level

23: STEP PHASER

This is a stereo phaser. The phaser effect will be varied gradually.



Knob	Parameter	Value	Explanation
	Mode	4-STAGE, 8-STAGE, 12-STAGE	Number of stages in the phaser
[Knob 2]	Manual	0–127	Adjusts the basic frequency from which the sound will be modulated.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
	Rate	0–127, note	Frequency of modulation
	Depth	0–127	Depth of modulation
	Polarity	INVERSE, SYNCHRO	Selects whether the left and right phase of the modulation will be the same or the opposite. INVERSE: The left and right phase will be opposite. When using a mono source, this spreads the sound. SYNCHRO: The left and right phase will be the same. Select this when inputting a stereo source.
[Knob 3]	Resonance	0–127	Amount of feedback
	Step Rate BPM Sync	OFF, ON	OFF: Step Rate specified as numerical value ON: Step Rate specified as note value
[Knob 1]	Step Rate	0–127, note	Rate of the step-wise change in the phaser effect
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
	Mix	0–127	Level of the phase-shifted sound
	Level	0–127	Output Level

24: INFINITE PHASER

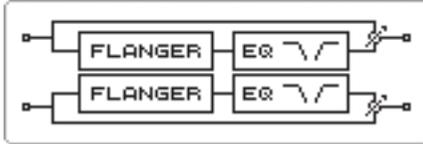
A phaser that continues raising/lowering the frequency at which the sound is modulated.



Knob	Parameter	Value	Explanation
	Mode	1, 2, 3, 4	Higher values will produce a deeper phaser effect.
[Knob 1]	Speed	-100–+100	Speed at which to raise or lower the frequency at which the sound is modulated (+: upward / -: downward)
[Knob 2]	Resonance	0–127	Amount of feedback
[Knob 3]	Depth	0–127	Depth of modulation
	Pan	L64–63R	Panning of the output sound
	Low Gain	-15–+15 dB	Amount of boost/cut for the low-frequency range
	High Gain	-15–+15 dB	Amount of boost/cut for the high-frequency range
	Level	0–127	Output Level

25: FLANGER

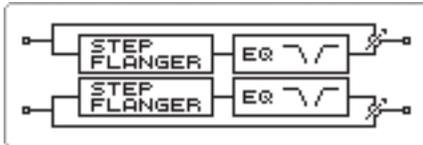
This is a stereo flanger. (The LFO has the same phase for left and right.) It produces a metallic resonance that rises and falls like a jet airplane taking off or landing.



Knob	Parameter	Value	Explanation
	Pre Delay	0.0–100 msec	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Frequency of modulation
[Knob 2]	Depth	0–127	Depth of modulation
	Phase	0–180 deg	Spatial spread of the sound
[Knob 3]	Feedback	-98–+98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
	Level	0–127	Output Level

26: STEP FLANGER

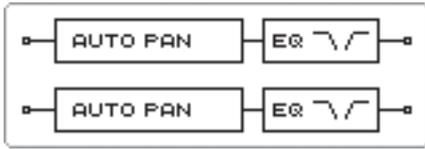
This is a flanger in which the flanger pitch changes in steps. The speed at which the pitch changes can also be specified in terms of a note value of a specified tempo.



Knob	Parameter	Value	Explanation
	Pre Delay	0.0–100 msec	Adjusts the delay time from when the direct sound begins until the flanger sound is heard.
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
	Rate	0–127, note	Frequency of modulation
[Knob 2]	Depth	0–127	Depth of modulation
	Phase	0–180 deg	Spatial spread of the sound
[Knob 3]	Feedback	-98–+98 %	Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.
	Step Rate BPM Sync	OFF, ON	OFF: Step Rate specified as numerical value ON: Step Rate specified as note value
[Knob 1]	Step Rate	0–127, note	Rate (period) of pitch change
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
	Balance	D100:0W–D0:100W	Volume balance between the direct sound (D) and the flanger sound (W)
	Level	0–127	Output Level

27: AUTO PAN

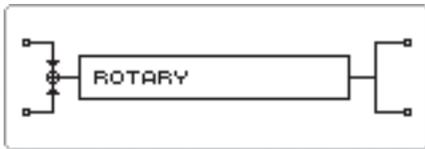
Cyclically modulates the stereo location of the sound.



Knob	Parameter	Value	Explanation
	Rate BPM Sync	OFF, ON	OFF: Rate specified as numerical value ON: Rate specified as note value
[Knob 1]	Rate	0–127, note	Frequency of the change
[Knob 2]	Depth	0–127	Depth to which the effect is applied
	Low Gain	-15–+15 dB	Gain of the low range
	High Gain	-15–+15 dB	Gain of the high range
	Level	0–127	Output Level

28: ROTARY

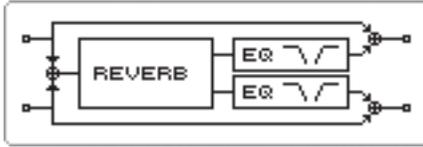
The Rotary effect simulates the sound of the rotary speakers often used with the electric organs of the past. Since the movement of the high range and low range rotors can be set independently, the unique type of modulation characteristic of these speakers can be simulated quite closely.



Knob	Parameter	Value	Explanation
[Knob 1]	Speed	SLOW, FAST	Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor. SLOW: Slows down the rotation to the Slow Rate. FAST: Speeds up the rotation to the Fast Rate.
	Woofers Slow Speed	0–127	Slow speed (SLOW) of the low frequency rotor
	Woofers Fast Speed	0–127	Fast speed (FAST) of the low frequency rotor
	Woofers Accel	0–15	Adjusts the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. Lower values will require longer times.
[Knob 2]	Woofers Level	0–127	Volume of the low frequency rotor
	Tweeters Slow Speed	0–127	Settings of the high frequency rotor The parameters are the same as for the low frequency rotor
	Tweeters Fast Speed	0–127	
	Tweeters Accel	0–15	
[Knob 3]	Tweeters Level	0–127	
	Separation	0–127	Spatial dispersion of the sound
	Level	0–127	Output Level

29: REVERB

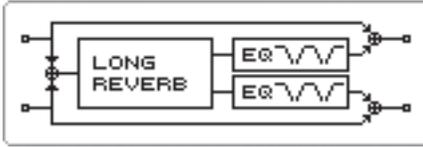
Choose between 4 different types of basic reverbs.



Knob	Parameter	Value	Explanation
	Reverb Type	ROOM1, ROOM2, STAGE1, STAGE2	Type of reverb ROOM1: dense reverb with short decay ROOM2: sparse reverb with short decay STAGE1: reverb with greater late reverberation STAGE2: reverb with strong early reflections
	Pre Delay	0.0–100 msec	Adjusts the delay time from the direct sound until the reverb sound is heard.
[Knob 1]	Reverb Time	0–127	Time length of reverberation
	HF Damp	200–8000 Hz, BYPASS	Adjusts the frequency above which the reverberant sound will be cut. As the frequency is set lower, more of the high frequencies will be cut, resulting in a softer and more muted reverberance (BYPASS:no cut).
	Wet Low Gain	-15–+15 dB	Amount of boost/cut for the effect sound's lower range
	Wet High Gain	-15–+15 dB	Amount of boost/cut for the effect sound's upper range
[Knob 2]	Level	0–127	Output Level

30: LONG REVERB

This is a very rich sounding reverb with a choice of 6 types.



Knob	Parameter	Value	Explanation
[Knob 1]	Depth	0–127	Depth of the effect
[Knob 2]	Reverb Time	0–127	Time length of reverberation
	Character	0–5	Type of reverb
	Pre LPF	16–15000 Hz, BYPASS	Frequency of the filter that cuts the high-frequency content of the input sound (BYPASS: no cut)
	Pre HPF	BYPASS, 16–15000 Hz	Frequency of the filter that cuts the low-frequency content of the input sound (BYPASS: no cut)
	Pre EQ Freq	200–8000 Hz	Frequency of the filter that boosts/cuts a specific frequency region of the input sound
	Pre EQ Gain	-15–+15 dB	Amount of boost/cut produced by the filter at the specified frequency region of the input sound
	HF Damp	16–15000 Hz, BYPASS	Frequency at which the high-frequency content of the resonant sound will be cut (BYPASS: no cut)
	LF Damp	BYPASS, 16–15000 Hz	Frequency at which the low-frequency content of the resonant sound will be cut (BYPASS: no cut)
	EQ Low Gain	-15–+15 dB	Amount of low-range boost/cut
	EQ Mid Freq	200–8000 Hz	Frequency of the low-range EQ
	EQ Mid Gain	-15–+15 dB	Amount of midrange boost/cut
	EQ High Gain	-15–+15 dB	Amount of high-range boost/cut
[Knob 3]	Level	0–127	Output Level